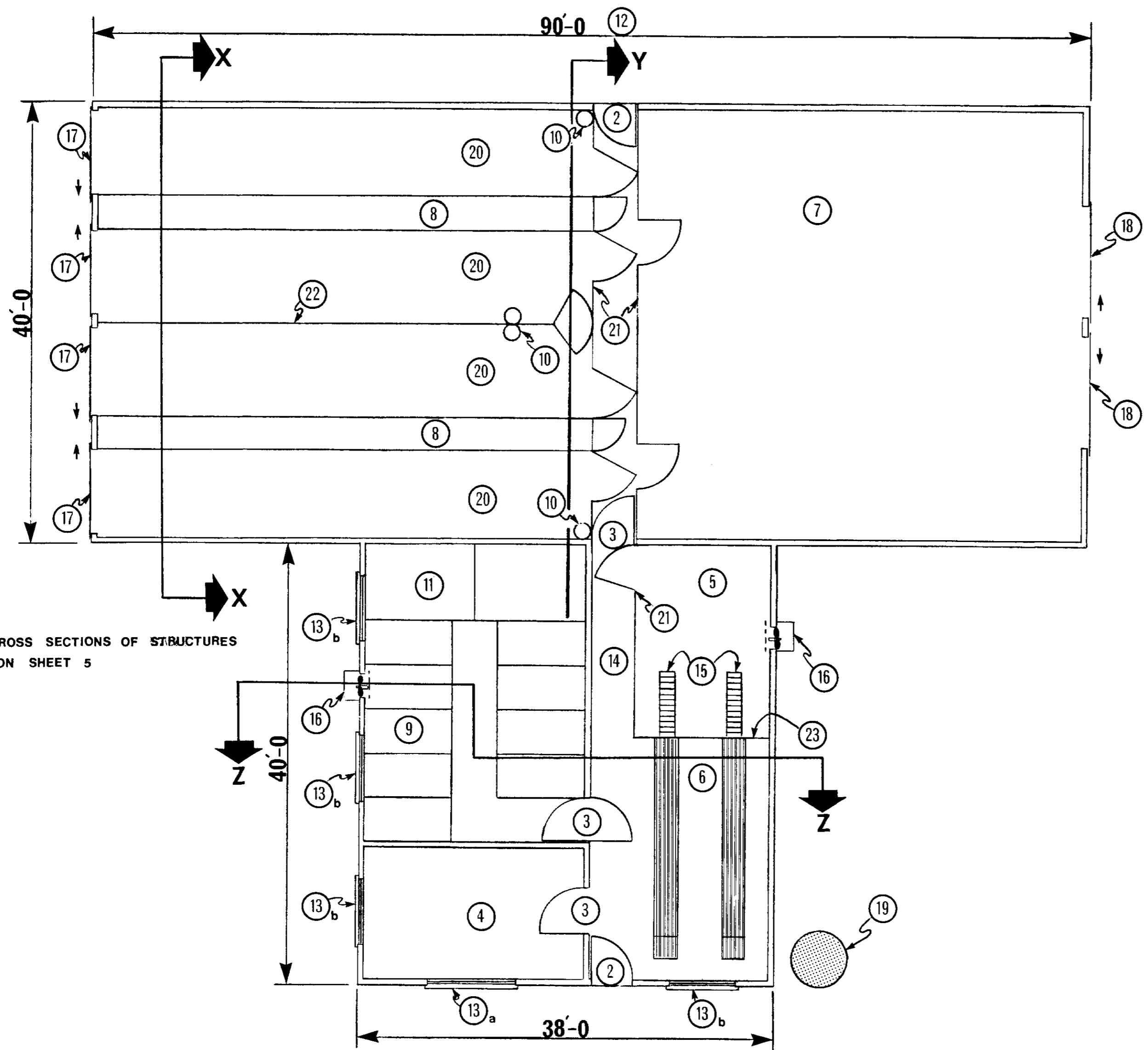


WARNING
 This plan may require structural and other changes to meet local site conditions, climatic loads, user requirements and applicable building regulations (such as the Canadian Farm Building Code). Before construction, the user of this plan is responsible to ensure that all required changes are made.

CANADA
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 DWG. NO. Q-8211 SHEET 1 OF 5
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AGRICULTURAL ENGINEERING SERVICE ONTARIO MINISTRY OF AGRICULTURE AND FOOD		
100 DOE CAPACITY GOAT MILKING BARN PLUS FEED AREA		
DRAWN BY: Don Hilborn Brian Horlick	SCALE NONE	PLAN NO. E-01-80
DATE: 24/6/80	SHEET 1 OF 5	



1. Floor plan
2. 3'-6 x 6'-8 insulated door
3. 3'-6 x 6'-8 self -closing door
4. milk house 12'-0 x 20'-0
5. Holding Area 12'-6 x 17'-6
6. Milking Parlour 12'-6 x 22'-0 see details #4
7. Hay Storage 39'-0 x 40'-6
8. Hay Feeder for details see sheet # 3
9. 9-4'-0 x 8'-0 Kid Pens, walls 4'-0 high
10. Water Bowls
11. 2-- 7'-0 x 10'-0 Kid Pens
12. either end may be extended to suit requirements.
13. (a) Window with insulated panel under for installation of milk cooler.
13. (b) Insulated Windows.
14. 4'-0 wide return alley
15. 2-- 1'-4 wide x 6'-0 long steel ramps with 1" high ridges to prevent slipping, ramp rises 2'-8 above floor level.
16. Exhaust Fan.
17. Sliding Doors 8'-0 x 8'-0 for clean out purposes.
18. Sliding Doors 10'-0 x 8'-0 for hay storage area.
19. Feed Bin.
20. Feed Area each area app. 8'-2 x 44'-6
21. 4'-0 High Fencing.
22. Optional 4'-0 high dividing fence with swinging gate.
23. Optional Wall and Door may be used in place of 4'-0 high fencing.

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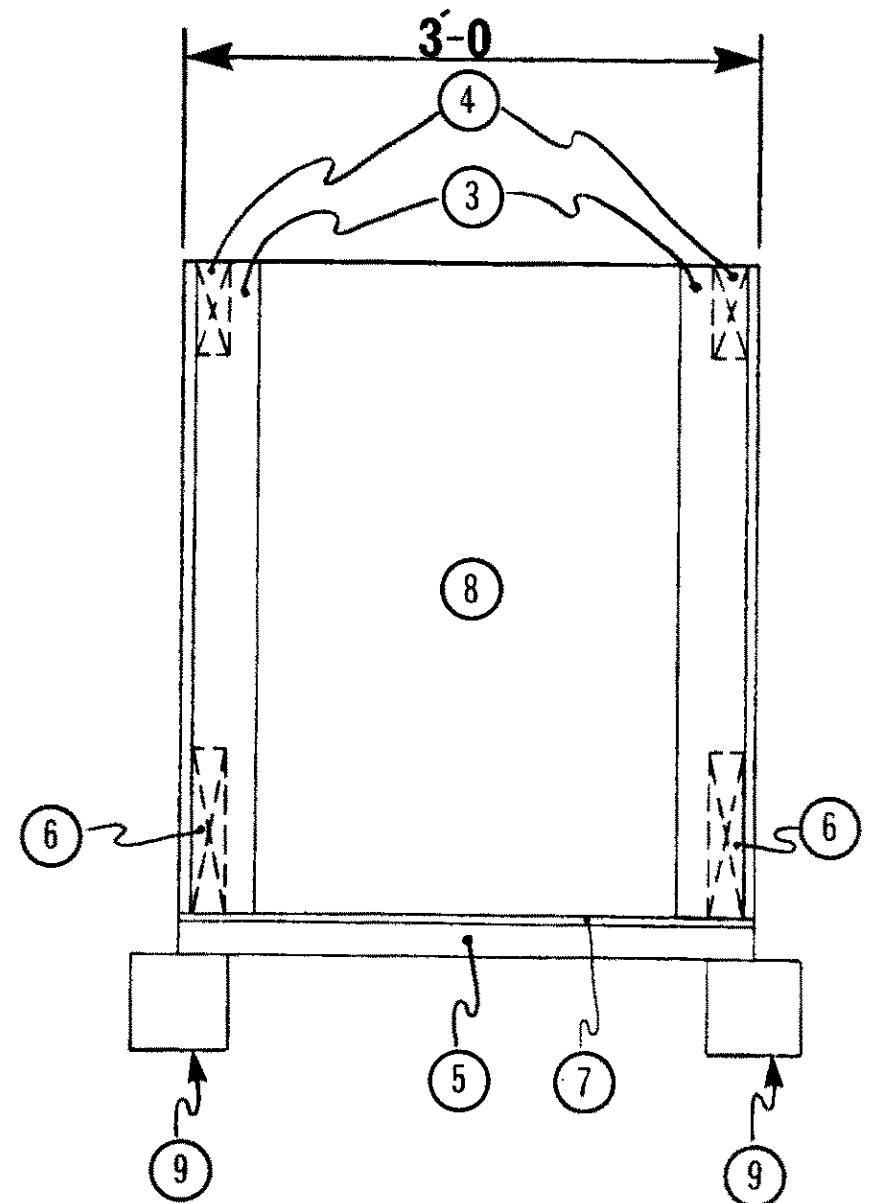
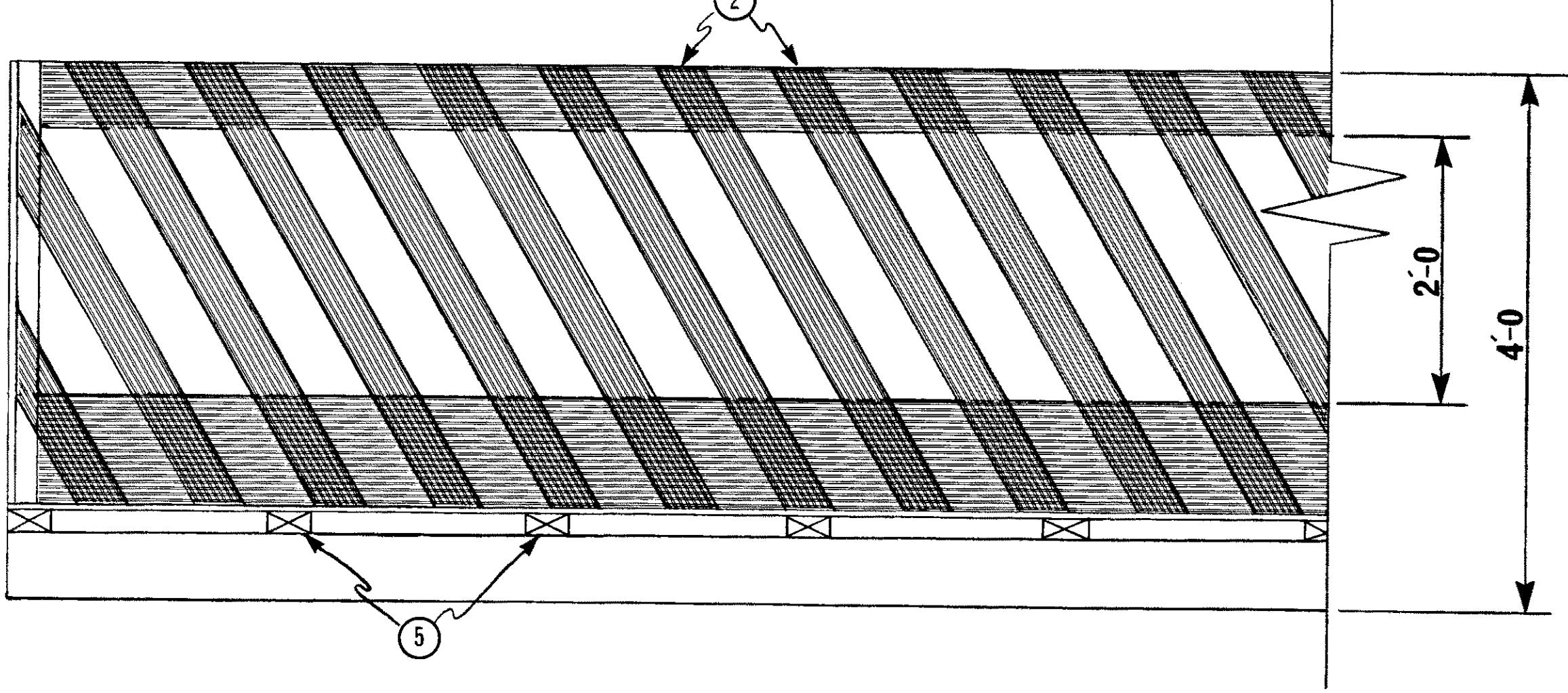
DWG. NO. O-8211 SHEET 2 OF 5

DWG. NO. O-8211 SHEET 2 OF 5

AGRICULTURAL ENGINEERING SERVICE
ONTARIO MINISTRY OF AGRICULTURE AND FOOD

100 DOE CAPACITY GOAT MILKING BARN PLUS FEED AREA

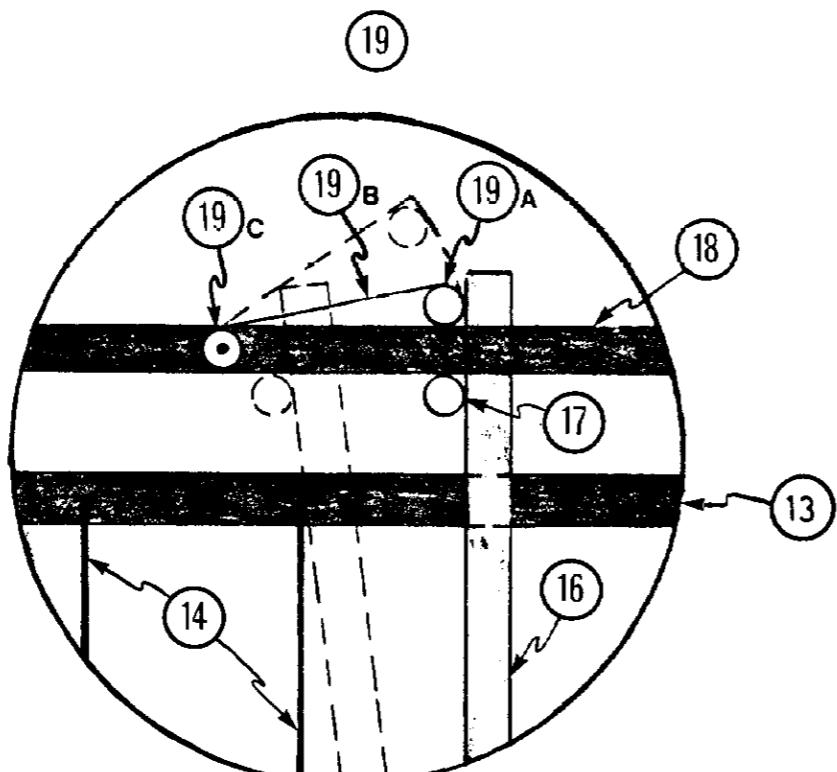
- 1) Hay Feeder Details
- 2) 1 x 4's with 5 $\frac{1}{2}$ gap for mature does, and 4" gap for younger stock.
- 3) 2 x 4's @ 10'-0" intervals
- for added support, these should run up to the ceiling joists.
- 4) 2 - 2 x 6's along top of feeder
- 5) 3'-0" long 2 x 4's @ 2'-0" o.c. for support
- 6) 2 - 2 x 10's along bottom of feeder
- 7) 1 $\frac{1}{2}$ " plywood bottom
- 8) - hinged door on ends of feeder with latch
- 1 x 4 frame with 1 $\frac{1}{2}$ " plywood body
- 9) 6" x 6" concrete base, 2'-6" apart for hay feeder to rest on.



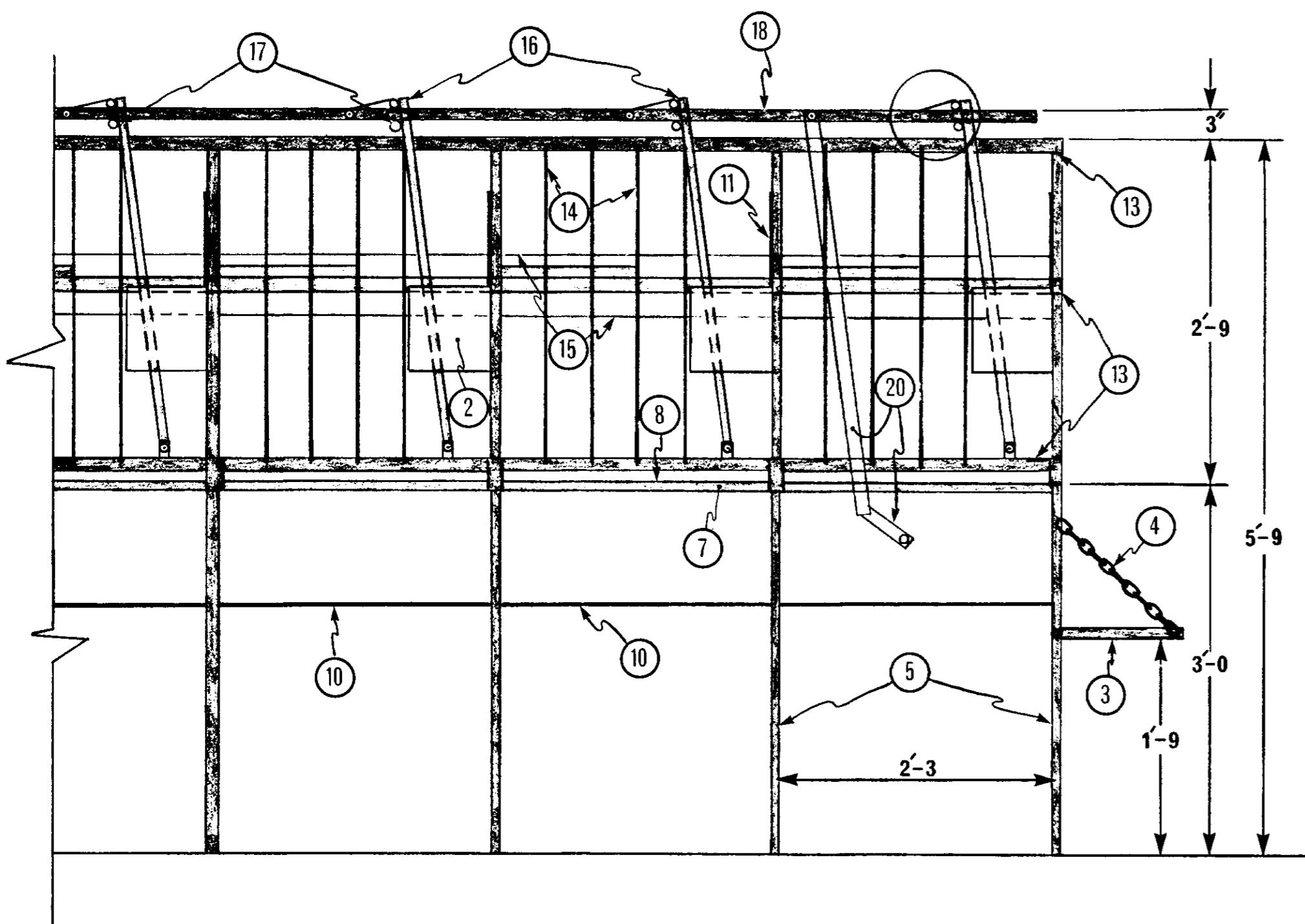
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DWG. NO. Q-8211 SHEET 3 OF 5

AGRICULTURAL ENGINEERING SERVICE ONTARIO MINISTRY OF AGRICULTURE AND FOOD		
100 DOE CAPACITY GOAT MILKING BARN PLUS FEED AREA		
DRAWN BY: Don Hilborn Brian Horlick		SCALE: 1"-1'-0"
DATE: 26/6/80		PLAN NO. E-01-80
		SHEET 3 OF 5

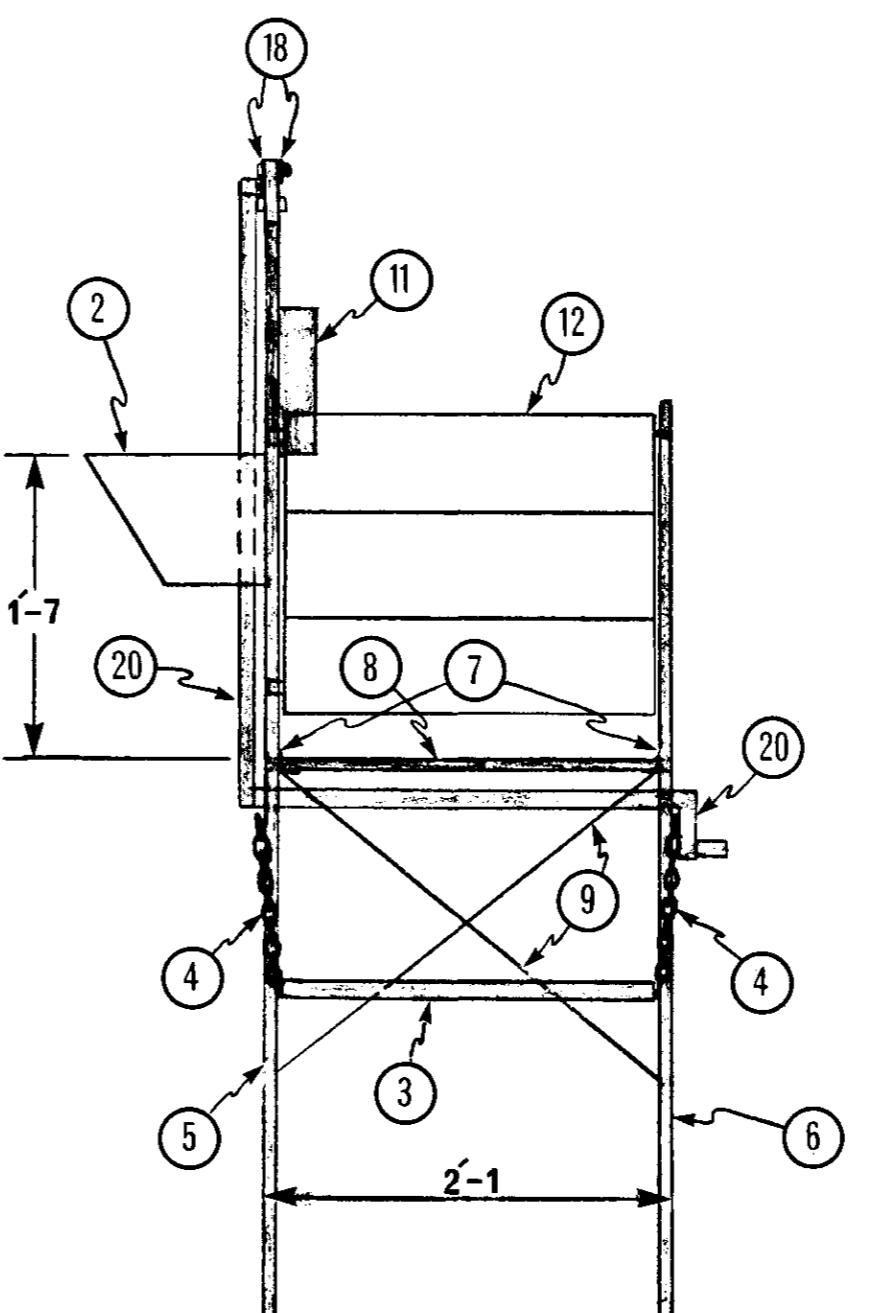


scale 3'-0



1

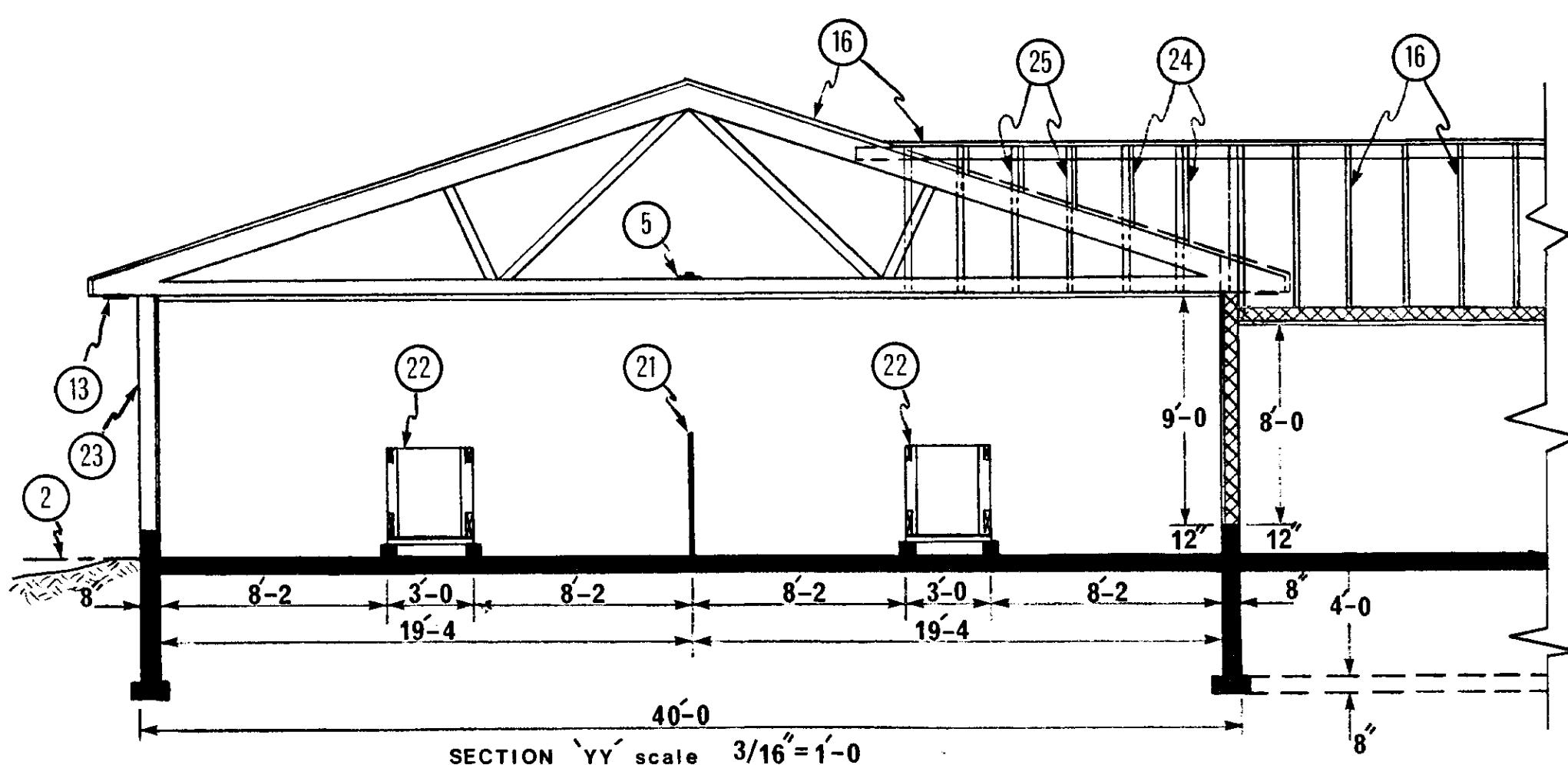
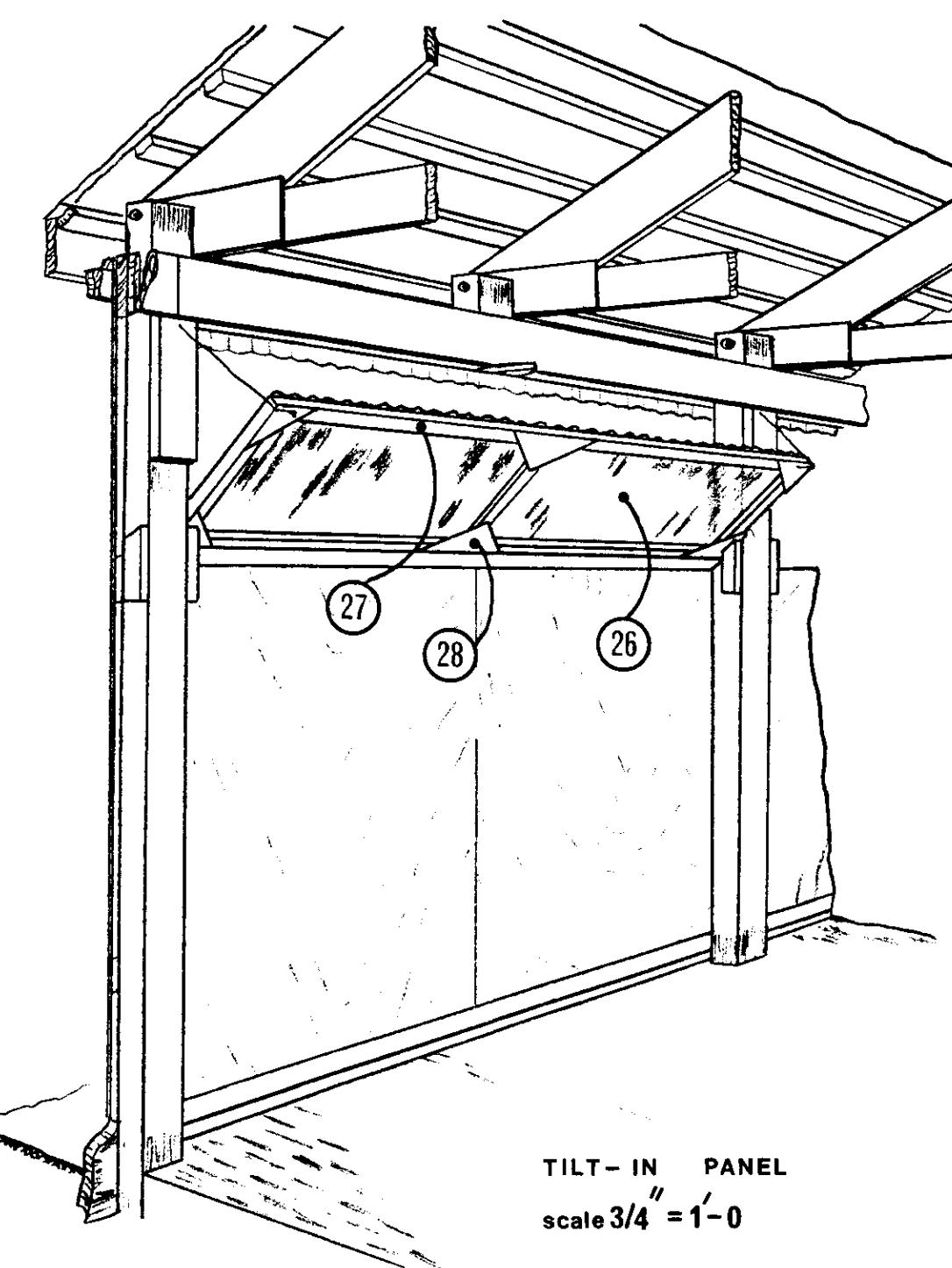
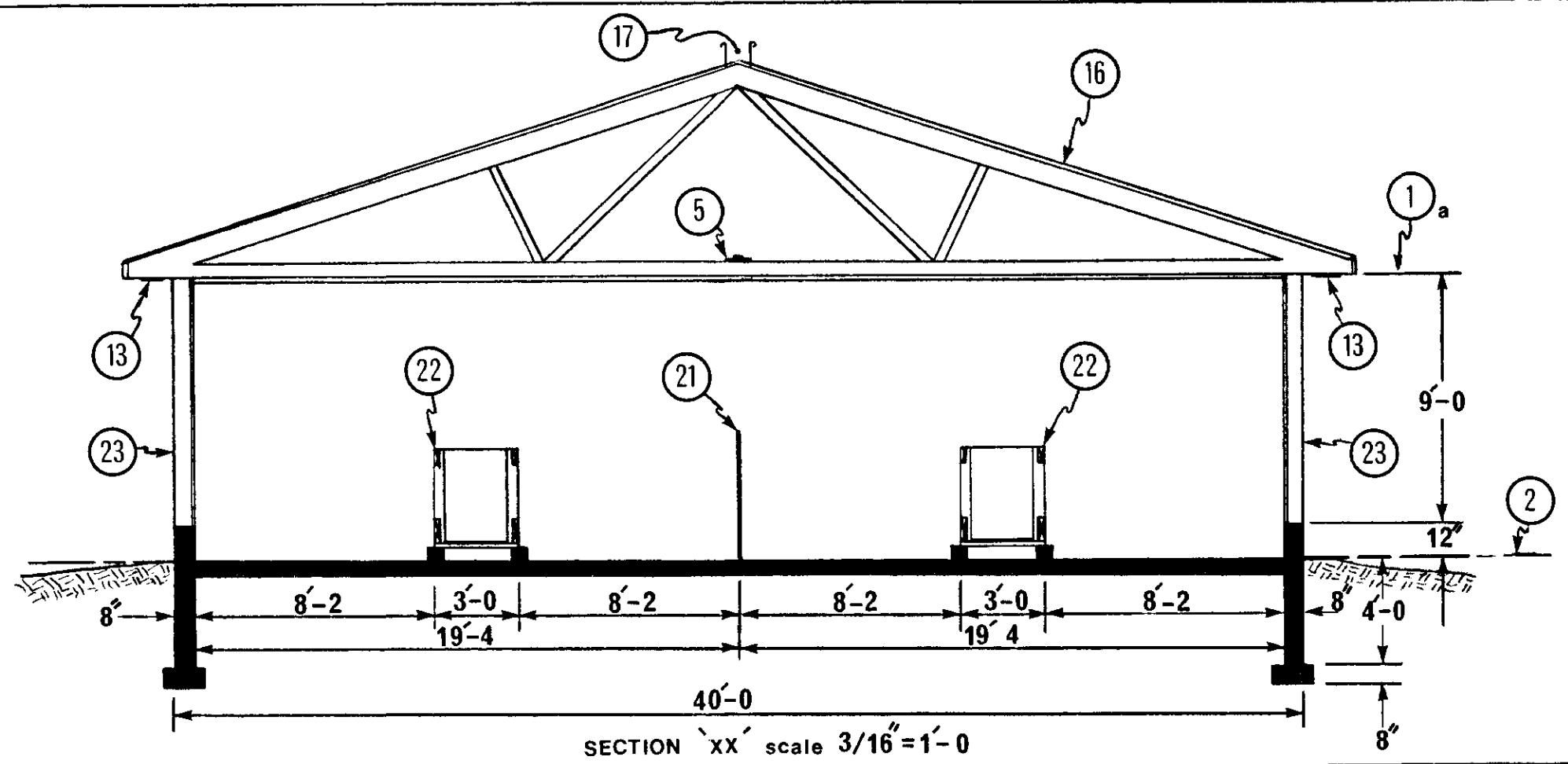
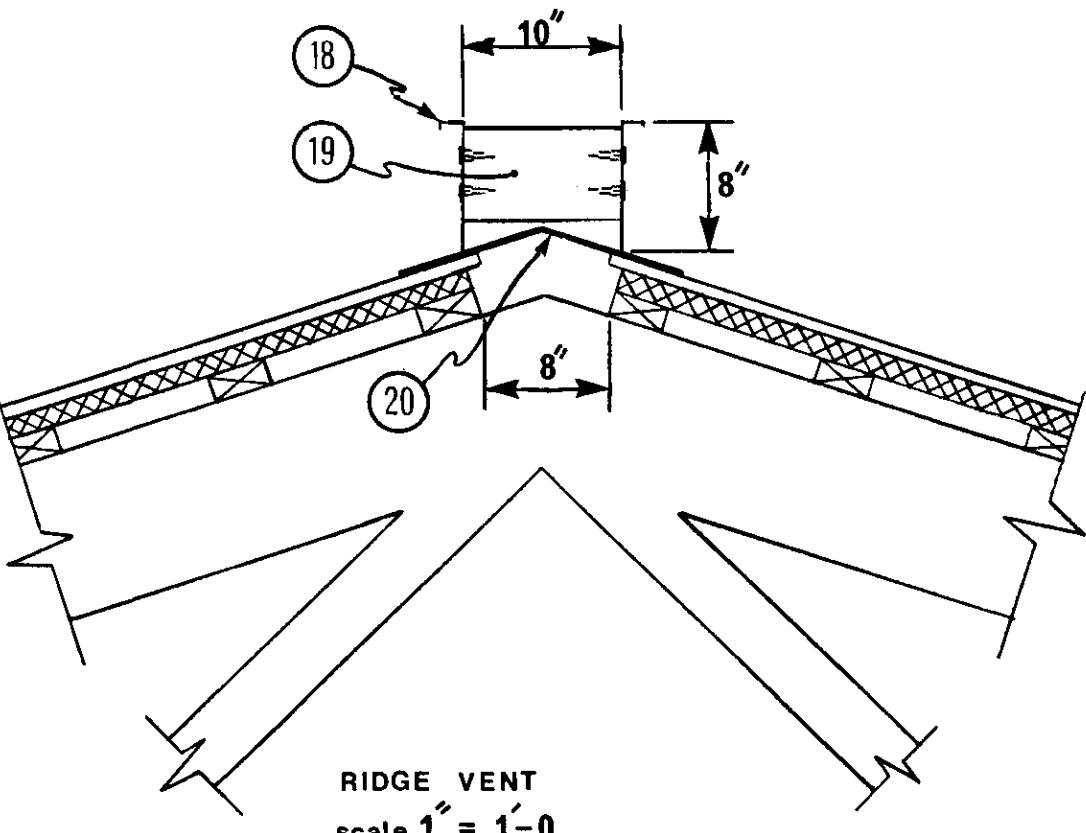
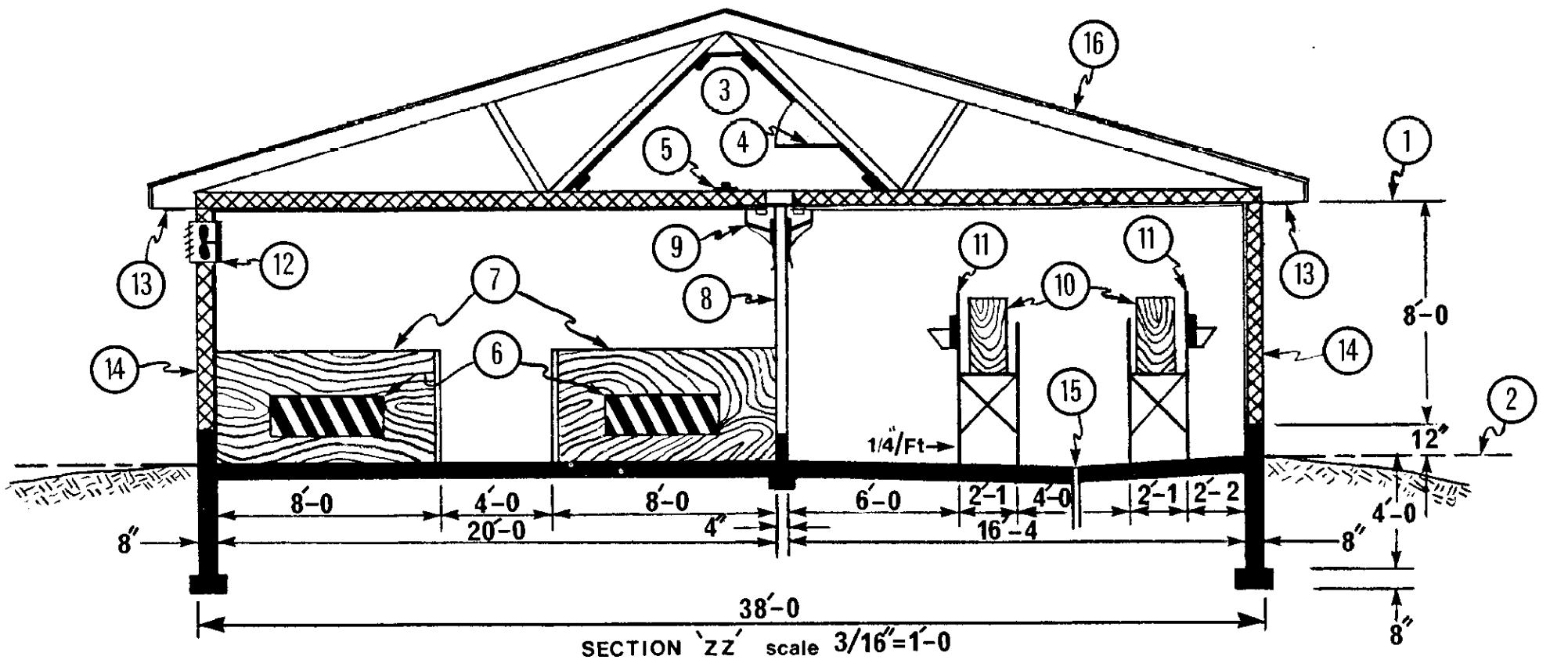
scale 1'-0



1. Milking Stand Details
2. Individual feed troughs from 1/8" thick steel - 8" wide x 8" high, projecting out 1'-0 at top and 7" at bottom - all joints welded completely
3. 1'-0 x 2'-0 slotted step bolted to corner frame members, step pivots up so out of way when not in use.
4. Length of chain attached to step and end frame work
5. 1" x 1" x 1/8" square structural tubing, each member 5'-10 long
6. 1" x 1" x 1/8" square structural tubing, each member 4'-10 long
7. 1 1/2" x 1 1/2" x 1/4" angle welded to vertical uprights 3'-0 above floor level
8. Slotted floor pieces that sit on 1 1/2" x 1 1/2" x 1/4 angles
9. 1/4" x 2'-6 long steel rods for reinforcement - welded to structural tubing
10. 1/4" x 2'-2 long steel rods for reinforcement welded to structural tubing
11. 3" x 9" x 1/8" thick steel plate welded by each feeder to guide goats into correct opening.
12. Hinged gate with latch made from 1/4" steel rods. Top of gate should be 2'-0 above floor level of milking stand.
13. 1 1/2" x 3/16" thick steel plates welded to each vertical member.
14. 1/4" x 2'-7 long steel rods welded to horizontal members @ 4 1/2" spacing.
15. 1/4" steel rods welded to 1" square tubing for back rails
16. 3/4" x 3/4" x 1/8" square structural tubing, 2'-10 long bolted to pivot at bottom.
17. 1/4" steel rod, 2" long welded to 3/4" square tubing, 3" from top end.
18. 2-1 1/2" x 3/16" thick steel plates on each side of 3/4" square tubing resting on 1/2" steel rods.
Note: spacers may be needed at certain intervals to keep plates correct distance apart.
19. Individual openings shown in enlarged inset consisting of
19a) 1/2" x 2" long steel rod which 3/4" square tubing rests against
19b) 5/8" x 1/8" thick steel plate welded to 1/2" steel rod and at other end welded to
19c) 1/2" x 1/8" steel tubing which is bolted to 1 1/2" steel plates and allowed to pivot here. When in closed position 1/2" rod is moved up to individually allow each goat to be locked in.
20. 1 1/2" x 3/16" steel plate bolted to steel top plates, below milking stand floor, a 1" steel rod runs to back of stand. At back of stand a handle is equipped to open and close lock in devices.

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DWG. NO. Q-8211 SHEET 4 OF 5

AGRICULTURAL ENGINEERING SERVICE ONTARIO MINISTRY OF AGRICULTURE AND FOOD	
100 DOE CAPACITY GOAT MILKING BARN PLUS FEED AREA E0180-4	
DRAWN BY: Don Hilborn Brian Horlick	SCALE AS SHOWN
DATE: 15/8/80	PLAN NO. E-01-80
SHEET 4 OF 5	



1. Top of Plate
- 1a. Top of Plate
2. Datum line
3. Plenum lined with 2" polystyrene insulation board; support longitudinal joints with 2" x 3" strapping inside plenum.
4. 4'-0 x 2'-0 drop door from attic, open door for winter ventilation only. Polystyrene reinforced with $\frac{1}{2}$ " plywood, hinge at bottom, to be held closed with barrel bolt at top. In summer, this door is closed and a door in the ends of plenum should be fully open directly to outside.
5. 2" x 10" walk plank
6. Hay feeder for kids with bottom 1'-0 from floor, 1'-5 high x 4'-0 long x 8" wide, with 4" gaps and 1" x 4" spacers
7. Kid pens 4'-0 x 8'-0 pens with walls 4'-0 high
8. 2" x 4" stud wall 2'-0 O.C. on 6" foundation wall.
9. Side Air Inlets
10. 3/4" plywood doors between ramp and milking stand.
11. Milking Stand - for details see sheet #4.
12. Exhaust Fan - see Management Information for details
13. Plywood soffit with 2" screened opening.
14. side wall
Note: R-20 insulation should be used.
15. Milking parlour floor drain should connect with milk house floor drain and should run to satisfactory disposal system. See Publication 1620 for details.
16. For Truss details, see truss plans to suit local design loads, 40'-0 span, double sloped, 38'-0, double sloped.
17. Ridge Vent slot detail - stops 4'-0 from end of hay storage area.
18. 26 ga. galvanized steel - continuous
19. 2" x 6" spacer @ 4'-0 O.C., over trusses
20. 6" length of 30 ga. galvanized steel over each truss
21. 4'-0 high dividing fence
22. Hay feeders - for details see sheet #3
23. For side wall construction
24. Valley rafters to frame, connecting roof slopes.
25. 2" x 4" support struts, both ways, from trusses to valley rafters above.
26. F.R.P. translucent siding to match metal siding.
27. Tilt-in window panel 7'-6 x 2'x3, between frame, 2" x 2" top and sides, 2" x 4" bottom.
28. 3/8" plywood gussets on tilt-in panel frame.

CANADA
PLAN SERVICE
DWG. NO. Q-8211 SHEET 5 OF 5
quick release plan

AGRICULTURAL ENGINEERING SERVICE
ONTARIO MINISTRY OF AGRICULTURE AND FOOD
**100 DOE CAPACITY GOAT MILKING
BARN PLUS FEED AREA**

DRAWN BY: Don Hilborn
Brian Horlick
DATE: 12/8/80

SCALE
AS SHOWN
DATE: 12/8/80

PLAN NO. E-01-80
SHEET 5 OF 5